

AIHA CASE #1

1. What antibody(ies) are present? Is this allo- or auto-antibody?

The patient appears to have a warm autoantibody in the serum and the eluate that acts as a pan-agglutinin, as well as an underlying allo-anti-Jk^a. This is consistent with the history from the other hospital 2 months before.

2. What does the auto-adsorption accomplish? Is this auto-adsorption result valid?

The autoadsorption removes the autoantibody by adsorbing it onto the patient's own RBCs, "leaving behind" the underlying anti-Jk^a which was otherwise obscured. Strictly speaking, however, the autoadsorption is not valid as it had been less than 3 months since the patient was last transfused. Three months is generally considered to be the time it takes for the donor RBCs to be cleared. The concern is that donor cells could adsorb allo-antibodies that the patient had made, in this case alloantibodies other than the anti-Jk^a that she clearly has made. This is very unlikely however, in view of the fact that the autoantibody shortens the survival of all of the circulating RBCs.

3. No antigen phenotype(s) was done. What is the problem(s) for performing an antigen phenotype in such a case? Could one have been done? How?

Since the patient's cells are already coated with antibody, in this case autoantibody, it is difficult to type them with anti-Jk^a which typically reacts at the AHG phase. However, in many cases a gentle elution with chloroquine will remove autoantibody from the RBCs so that they can be typed. There is also a concern that donor cells might be circulating. Again, this is unlikely. In cases in which it is an important consideration, a reticulocytes (patient only) can be isolated by centrifugation in capillary tubes and used as a target for the typing sera.